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AUTHOR	Stotland, Ezra; And Others
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ABSTRACT

Social schemas were defined as cognitive structures associating positions on different dimensions of interpersonal situations, such as liking, power, helping, similarity, status, communication, and influence. Social schemas were measured by first presenting social situations by verbal and pictorial means which clearly illustrated one position on one dimension; then the subjects were asked what position this implied on a 2nd dimension. The social schemas of over 3,ooo students were measured. It was found that the students tended to be consistent across items designed to measure the same social schema. Students also tended to show a high degree of agreement on social schemas. (Author)

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Social Schemas of American College Students

Ezra Stotland
University of Washington

Thomas Reed
University of Western Australia

Solveig Thomson
University of Washington

Arnold Katz
Seattle, Washington

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SOCIAL SCHEMAS OF AMERICAN COLLEGE STUDENTS[1]

In social psychological research, the assumption is often explicitly or implicitly made that people perceive situations in terms of certain dimensions or aspects. For example, people presumably perceive the degree and direction of liking, of power, of helpfulness, etc., in a given social relationship. The number of dimensions in terms of which a person is perceiving may be limited in any given situation; nevertheless, a person may have a wide repertoire of available dimensions. These dimensions are involved not only in the perception of social situations, but also in communications about them. The words used to describe social situations correspond in large part to these dimensions.

Further, much of the data of social psychology indicate that in the reality corresponding to positions on these cognitive dimensions, there are observable correlations between positions on different dimensions. For instance, data indicate that similarity and liking are often found to be positively associated (Collins and Raven, 1969). There are a disproportionate number of situations in which similar people like one another, and situations in which people who are different dislike one another. The remaining, opposite combinations occur less frequently. Similarly, situations occur which are consistent with other dimensions as well.

Thus, if positions on these dimensions tend to be correlated in reality, the perceiver will soon tend to acquire cognitive structures which might be represented by correlations between positions on these dimensions. The acquisition of these cognitive structures is assumed here to be partly the result of a process of observational or perceptual

learning and partly a result of communications from other people. The term given to these cognitive structures is social schemas. The present use of the term is an extrapolation of the use made by Kuethe (1962) and De Soto (1960). In their usage, the dimensions are of either two types: interpersonal on the one hand and physical or mathematical on the other. For instance, their studies demonstrate that the perceived closeness of silhouette drawings of people is correlated with the affective relationship between them.

If social schemas do exist as part of people's cognitive structures, then a person would be expected to perceive each of a variety of specific situations as conforming to one of his relevant social schemas, provided that the situation is perceived in terms of at least one of the dimensions involved in that social schema. Thus, a person who has a social schema that mutual helpfulness is correlated with high mutual liking would tend to perceive any situation involving mutual helpfulness as also involving high mutual liking. This person would tend to perceive the relationship between mutual helpfulness and liking, regardless of whether the situation was in a factory or at a tea party.

A first objective of the study was therefore simply to test the hypothesis that people do possess measurable social schemas. If the first hypothesis is confirmed, then a second one is to determine what social schemas are possessed by a broad sample of American college students. Not only would such information be interesting in its own right, but would provide more knowledge of the psychological context within which many social psychological studies are conducted. Since social schemas are assumed to be acquired on the basis of perception, and since perception in turn is influenced by social schemas, a question thus arises as to the way that the assumed perceptual learning can take place. The answer would appear

to lie in the individual's early experience. The social situations an individual encounters in his family provide the basis for the acquisition of his first social schemas. He may observe situations of dislike occurring after a disagreement and of liking after an agreement; of obedience to a high status person, such as a parent, and of indifference to a low status person, etc. In addition, both verbal and non-verbal communications from parents and others establish schemas in the cognitive structure of the growing person. The social schemas the person acquires while young would then appear to determine perception of ambiguous or equivocally structured social situations encountered in adult life.

One way of indexing the different kinds of social situations which an adult experienced in his childhood is by means of his birth order. By definition, the social situations that, say, a last born encounters are different from those of an only child. In the study described here, a third objective was to test the general hypothesis that, as compared to later borns (LBs), first borns and onlies (FBs) would be more likely to possess social schemas whose content concerns people who occupy different positions on a dimension. Examples of such social schemas would be those entailing one person liking another person more than he is liked in return; one person having more power than another; one person influencing another more than he is influenced, etc. The reason for this hypothesis is that a FB's initial experience in life involves people very different from himself, his parents. In contrast, the LB encounters at least one other person who is similar to him in status, power, pattern of life, etc. The LBs would thus be hypothesized to be more likely than FBs to acquire social schemas in which two people occupy the same position on a dimension. For instance, the LB's social schemas might involve two people mutually influencing one another, helping each other, liking or disliking one another,

etc. (cf Stotland and Dunn, 1962; Stotland and Cottrell, 1962; Stotland, 1969). Obviously, these two general hypotheses gloss over differences in the experiences of people who differ with respect to the sex of their siblings, the age gap between and among them, their presence in the same home, etc., etc. No hypotheses were formulated with respect to these differences, but the size of the sample in the study was large enough to permit more differentiated comparisons, such as comparing people who have no sisters with those who do, etc.

Procedure

Overall design. A series of 12 questionnaires was developed, each one designed to measure a unique set of four or five different social schemas. Two types of social schemas were measured in each questionnaire. In the first type, the "Differential," a drawing of an everyday social situation is presented in which two people occupy different positions on one of the dimensions of the social schema. A caption below the picture indicates what this dimension is and what positions on it are held by the two people. Below the caption is a question concerning the relationship between the people on the second of the dimensions of the social schema being measured. Five such picture-question stimulus items were used to measure each of the differential schemas.

The second type of social schema, the "Equals," involved pictures in which both of the people in the picture-captions were at the same position on a given dimension; e.g., mutual liking or mutual disliking. Pairs of each picture-caption item were used, each item in a pair having people who are either both high or both low on the picture-caption dimension. In other respects, the people and the situation were more or less alike on both items of a pair. Under the captions were the questions about the

positions of the people on the second dimension of the social schema. The difference between the answers on rating scales to each of the picture-caption items provided the basic data. Five such pairs were used.

Questionnaire design. The dimensions of interpersonal relationship which were used in the study were liking, similarity, communication, helping, influencing, status, and power. These were selected because they appeared to be salient in much current social psychological research and many appeared relevant to birth order differences (cf Sampson, 1965). The questionnaires dealt with almost all of the possible combinations of dimensions; i.e., almost all the possible social schemas of relationship between the dimensions. The exceptions will be noted below. In each combination, both directions of schema-influenced perception were measured, so that the implication that, say, liking has for helping was measured as well as the implications that helping has for liking.

The questionnaires consisted basically of a series of pictures of two people who had some relationship to one another along one of the dimensions, with a caption below the picture describing the dimension and their positions. Below each caption was a question or pair of questions about the positions that these people had on some other dimension of the relationship. The instructions to the subjects were designed to get them to answer in a spontaneous manner and were as follows:

"SOCIAL SITUATION STUDY

The purpose of this questionnaire is to find out how people think other people, in general, will feel or act in various social situations. You and many others are being asked to give your impressions, and to make guesses, about the actions, feelings, and thoughts of people pictured in various situations.

In the following pages, the social situations which are pictured are like instances in everyday life in which you encounter strangers for the first time and have to make snap judgments about how they will act or feel toward one another. Often you have little to guide you, except your intuition, yet you do make snap judgments or guesses when you have to.

In the following pages, you are asked to guess, to make snap judgments, to use your intuition in much the same way as you often do in everyday situations. On each page there is a picture, a caption below it very briefly describing the people in the picture, and at the bottom, questions about the people. The questions ask you to make a guess about them. Sometimes you will feel that you do not have enough information in the pictures and captions to give you a clear basis for answering. Please make your guesses anyway--even if you are not too certain about them.

The questionnaire is completely anonymous. Please do not put your name on it. This is not a test of your personality or your ability. <u>There are no right or wrong answers</u>.

Answer all the questions. Work as quickly as possible. Do not turn back pages. You may start now. When you have finished, turn your questionnaire over to show you are done."

The pictures generally were relatively barren of detail, so as to minimize the number of cues which were irrelevant to the purposes of the study. Also, the faces were drawn with a minimum of articulation. The captions also were very minimal. The reasons for using the combination of both pictures and captions were, first, that the pictures would tend to make the situations more psychologically real for the subjects, making it easier for them to become involved; and second, the captions focused the subjects' attention on the pertinent dimension.

The first type of social schema, the "Differential," was measured by having a picture-caption combination in which two people are depicted as being at different points on the dimension in question. For example, a power picture-caption might depict a commercial fishing boat with two sailors talking, one with a cap on and designated "A" below the picture, the other capless and designated "B". The caption below reads, "A is captain of a fishing boat on which B is a crew member." Another example, for the dimension of liking, has two men in a parking lot, with "A" or "B" under each of them. The caption reads, "A and B have reserved parking lot stalls next to one another. A likes B more than B likes A." In most captions, the key words were under lined.

The picture-caption dimensions which were used for the differential social schemas were liking, influence, communication, help, status, and power. The differential schemas that were measured consisted of each of these picture-caption dimensions paired with each of the other dimensions as a question or response dimension. However, the power and status dimensions were not paired, being too obviously related. In addition, the similarity dimension was used as a response variable. In other words, in almost all cases, both directions of implication of positions on pairs of dimensions were measured.

Each of the social schemas relating the dimensions was operationalized by five items or exemplars of the picture-caption dimension, each item depicting a different situation in which the social schemas could be exemplified. The situations were as varied as possible: work, picnic, business offices, shopping, meetings, bus travel, parties, camping, car travel, luncheons, military, etc. The only ones which were avoided were home and school. The former was avoided because of the possible contamination of the birth order effects; the second because the responses

might reflect the actual situation the subjects were in at the time of filling out the questionnaire. Both of the people depicted in the pictures were of the same sex; whether there were three male pictures and two female pictures or vice versa was determined by the appropriateness to the dimension. For example, power situations were easier to find for men than women.

The questions that were below the captions also varied in specific content. Care was taken to minimize the possibility of the subjects finding some logical or reasonable basis in the picture-caption for answering the questions. For example, if the picture-caption showed two men who differed in status, a question about their similarity in political outlook was not used; similarity with respect to TV programs would be used. Thus, the subjects would have to employ their schemes to answer the question. In fact, during the pilot runs, many subjects complained that they had no basis for answering the questions. As we shall see below, they actually did, but the basis was not in the "logical" implications of the pictures. The questions were as follows:

Similarity: "How similar or different would you guess they are in their feelings about their families? Choose one of the following:

1. Tend to be similar _____
2. Tend to be different _____
3. Neither _____

If you guess they tend to be similar or different, estimate how much." (Nine point scale.)

Other questions concerned similarity of preference for TV programs, attitudes toward politicians, reading materials, or sports, etc.

This question was scored by assigning a score of zero to Neither and then treating the rating as ranging from one to nine for the subjects checking "Tend to be similar" and from -1 to -9 for those checking "Tend to be different."

Liking: "How much would you guess A likes B?" (Nine point scale); "How much would you guess B likes A?" (Nine point scale)

This item was scored by taking the algebraic differences between the two ratings.

Helping: "If A sometimes needed something B could give, like advice about an important personal problem, how helpful would you guess B would try to be?" (Nine point scale.) "If B sometimes needed something A could give, like advice about an important personal problem, how helpful would you guess A would try to be?" (Nine point scale)

Other items concerned lending tools, borrowing books, giving lifts home, giving moral support, giving travel information, etc.

This item was scored by taking the algebraic difference between the scales.

Communication: "If they meet later after the course is over, how much would you guess A would want to talk with B?" (Nine point scale); "How much would you guess B would want to talk with A?" (Nine point scale)

This item was scored by taking the algebraic difference between the ratings.

Influence: "If they talked about educating children, how much would you guess A would sway B's ideas?" (Nine point scale); "How much would you guess B would sway A's ideas?" (Nine point scale)

Other areas were business, politics, sports, meetings, trips, etc.

This item was scored by taking the algebraic difference between the ratings.

Status: "Would you guess that one of them is more respected by his friends than the other? Check one of the following:

1. A is more respected than B. _____
2. B is more respected than A. _____
3. Neither is more respected than the other. _____

If you guess that one is more respected than the other, estimate how much more." (Nine point scale)

Other ways of asking this question concerned "being looked up to in the community," etc. This type of item was scored by assigning a score of zero to "Neither" and scores ranging from one to nine if the subject marked A more than B and scores from -1 to -9 if he marked B more than A.

Power: "If they later both happen to work for the same company, would you guess one of them would have a higher position than the other? Check one of the following:

1. A would have a higher position than B. _____
2. B would have a higher position than A. _____
3. Neither would have a higher position than the other. _____

If you guess that one of them would have a higher position than the other, estimate how much higher his position would be." (Nine point scale)

On other questions, the question concerned community organizations, labor unions, etc. Power is distinguished from status by the former being limited to relationships within the same organization in which one person

can determine some aspect of the fate of the other because of their positions in the organization.

If the subject checked "Neither," he would be assigned a score of zero. If he checked A more than B, he would be assigned scores ranging from one to nine; if B more than A, scores ranging from -1 to -9.

As we shall see below, the consistency of a subject's response across all five of the items to measure a given social schema was tested by a factor analysis.

The second type of social schema, the "Equals," was measured somewhat differently from the "Differentials." The former social schemas are those in which both people occupy the same position on the dimension. The picture-caption dimensions were liking, similarity, communication, helping, and influencing (status and power were not used in the picture-caption because the status or power of a person concerned people not pictured; e.g., two high status men have their status with respect to other people, not with respect to each other. Therefore, questions about their relationships to each other on other dimensions are not entirely appropriate. This issue was raised by results from pilot studies.). In measuring social schemas, each of these dimensions was paired with each of the other ones, plus status and power as question dimensions. For each combination of picture-caption dimensions, there were five pairs of items designed to measure the social schemas--i.e., ten picture-caption items in all. One member of each pair represented the high point on a dimension (with both people high); the other represented the low. The pairs were alike in other respects, such as sex, age, situations, activity, etc. For example, a pair representing the high and low points on the dimension of communication were as follows:

"A and B (both women), who never met before, happen to sit next to one another on a bus. They talk with one another a lot."

"A and B (both women), who never met before, happen to sit next to one another on a bus. They talk very little to one another."

Another example: "A and B (both men) meet in a hardware store. As they chat, they influence one another's ideas about jobs around their homes."

"A and B (both men) meet in a hardware store. As they chat, they do not influence one another's ideas about jobs around their homes."

The basic score for the "Equals" schemas was the algebraic difference between the members of a pair of picture-captions with respect to the answers to the same question.

The questions were as follows:

Liking: "How much would you guess A and B like one another?" to be answered on a nine point scale.

Similarity: "How similar or different would you guess A and B are with respect to preference in TV programs?" (Nine point scale, from very similar to very different.) Other questions concerned politics, sports, child rearing, etc.

Communication: "If A and B met on another occasion, how much would you guess they would be inclined to talk to one another?" (Nine point scale)

Help: "If A needed some assistance from B, like getting a lift home, how helpful would you guess B would be?" (Nine point scale) The same question was asked about A's help. The ratings for A and B were summed, since the subject was not given a basis for discriminating between two people. Other questions concerned lending books, tools, etc.

Influence: "How much would you guess that A and B would influence one another with respect to preferences in automobiles?" (Nine point scale)

Other questions concerned restaurants, music, etc.

Status: "How highly respected would you guess A is in his community?" and "How highly respected would you guess B is in his community?" The two ratings were summed. The reason this sort of item was used was that it was felt that the subjects would be reluctant to make the assumption that both had the same status.

Power: "If A belonged to the National Guard, how high a rank would you guess he had?" and the same question for B. The scoring and rational were the same as for status.

The degree of consistency in subjects' responses to the five pairs of pictures operationalizing a social schema was measured by factor analysis.

Since the total number of social schemas of both types was 54, they were broken down into 12 sets to form 12 booklets, each subject receiving one of the 12 booklets. Each booklet contained four or five social schemas, about equally distributed between equals and differentials schemas. No picture-caption dimension was used more than once in the same booklet, nor was a given question response used more than once in the same booklet. However, the same pictures and captions were used in the various booklets to operationalize the same dimension. The booklets had 30 or 35 items, one to a page. The items were in a random order, the same random order for all copies of a given booklet.

The questionnaire was administered to male and female students in psychology classes at Portland State College (N= 751), at Western Washington College (N= 601), at Shoreline Community College (N= 761), at Seattle University (N= 370), and to 719 entering freshmen at the University of Washington. The total N was 3695, 1740 males and 1955 females. The purposes of the study were completely explained to the subjects immediately afterwards.

Results

The first hypothesis was that there would be consistency in the subjects' responses to the sets of five items designed to tap each of the various social schemas. Accordingly, the responses to each of the 12 booklets were factor analyzed in order to determine whether the items designed to measure the same social schema loaded on the same factor and whether other items did not load on that factor. The method used was a principle axis solution for basic structure with varimax rotation to a simple structure. Factoring was continued so long as each obtained factor accounted for more variance than a single scale. All factors were rotated.

Insert Table 1 about here

As can be seen from Table 1, about half the total variance was extracted by the factor analysis of the various booklets.

Equals schemas. The factors generated by the factor analysis were such that the five items designed *a priori* to tap the same equals schemas very nearly always loaded on the same factor to a considerable degree, and seldom loaded on other factors. This can be seen in Table 2, in which are presented the loadings on the factor corresponding to the various social schemas. In addition, items in the same booklet not designed *a priori* to measure a given social schema only rarely loaded to any meaningful degree on the same factor as the items designed to tap the social schemas. This also can be seen in Table 2. Thus, in general, the data do indicate that social schemas lead to perception of different situations in a consistent way.

Insert Table 2 about here

Differential schemas. For most of the Differential schemas, the same pattern of results occurred as for the Equals. Factors emerged which loaded almost exclusively on the items designed a priori to measure a given social schema, as can be seen from Table 3. However, for status and liking, two factors emerged, each of which loaded to a strong degree on only some of the items in the sets designed to measure each of the social schemas. In other words, the social schema seemed to split into two social schemas. Although the patterning of these split social schemas did not appear to be random and tended to bunch up on certain dimensions, it was not possible to compare directly the instances of split factors which occurred on the same dimension on different social schemas, since the different social schemas involving the same dimension occurred in booklets filled out by different subjects.

Insert Table 3 about here

Social schemas held by sample. In order to determine what social schemas were held by the total sample, t tests were run for each item. These t tests compared the obtained mean score on each item to the score that would have been attained if the subjects had indicated that position on the picture-caption variable made no difference for the question variable. Thus, for the Equals schemas this latter score would mean that the subjects rated both the high and low picture-captions on a dimension as being equal on the question variable. For the Equals schemas all of these t tests were significant and remarkably large. (See Table 4.) In essence, the subjects indicated that they believed that mutual liking, mutual helping, mutual communication, and mutual influence were all positively related to one another; and that similarity was also perceived as positively related to each of those dimensions.

Insert Tables 4 & 5 about here

With respect to the Differential schemas, the general trend also is for the subjects to perceive relationships between positions on the picture-caption and question variables (see Table 5), but the trend is not so strong as in the case of the Equals schemas. The rather complex findings can be summarized as follows:

1. The person who likes more than he is liked is perceived to help more than he is helped, to talk more than the other person, to be influenced by the other person more than he influences. The person who helps more than he is helped by the other is perceived to like the other more than he is liked; the person who talks more is perceived to like the other more than he is liked.

2. People who differ on any one of the picture-caption dimensions, except power and status, are perceived to differ on the question variables as well. The inconsistent results on power and status are in line with the general inconsistency of results in these variables.

3. Differences in picture-caption variables which involve one person acting overtly more than the other are positively related to one another. These variables are communication, influence, and helping. Thus, the person who communicates more also is perceived to influence more and to be more helpful. The person who has more influence is perceived to help more and talk more. The person who is more helpful has more influence; the only exception to this trend is the rather inconsistent effect of helping as a picture-caption variable on communication. Perhaps people who are being helped are sometimes perceived to need to communicate their needs.

4. There are relatively fewer widely held social schemas with status and power as the picture-caption variables. The only widely held ones appear to be the positive relationship between status and power on the one hand and influence on the other; and the positive relationship between power and helping; and the negative one between status and communication. The subjects did not appear to have any social schemas that indicated that power or status alone provided an adequate basis for predicting the relationship of two people on some other dimension. Moreover, when status or power were the question variables, the subjects had consistent social schemas only with helping and influencing in the picture-captions, with the higher status or power person doing more of both.

Birth order data. The above factor analysis was used to generate factor scores for all subjects. The subjects were then split into the following birth order groups: onlies, firsts, middle and lasts, separately for each sex, and analyses of variance were computed. No results unattributable to chance were found. Similarly, breaks by sex of siblings, number of siblings, age-gap to older and to younger siblings were fruitless, as was a split according to the educational level of the parents. Thus, the birth order hypotheses were not confirmed, nor were any sex differences found.

Discussion

The factor analysis results generally indicate that people do in fact have social schemas, since differences in responding to the various items were correlated, showing that subjects differed in their reactions to the pictures in consistent ways. The dimensions that were chosen *a priori* also in general appear to be those which are involved in social

schemas. However, the results did suggest that taking two dimensions at a time was sometimes inadequate, since some dimensions appeared to cluster in social schemas involving more than two dimensions. In both the Equals and Differential conditions, there were signs of the existence of a social schema consisting of positive correlations between positions on dimensions referring to overt activity: talking, helping, and influencing. This tendency suggests that people may have social schemas of a very complex sort, in which a whole series of dimensions is implicated, almost "gestalts" of social situations. If the existence of such complex social schemas turns out to be pervasive, then it could be said that people possess a limited set of "stereotypes" about types of social situations. These stereotypes could guide behavior as well as perception in a manner parallel to the way that ethnic stereotypes guide other sorts of behavior.

Another unexpected finding is that college students appear to have two dimensions of status and two dimensions of liking, since two separate factors emerged in both cases. This finding suggests that dimensions which social psychologists usually conceive of as unitary, such as liking, may in fact be dual from the point of view of the subjects. Thus, relationships found by researchers with respect to one of these dimensions may not be generalizable to relationships found with respect to the other.

The data also indicate that despite the subjects' disclaimers, their social schemas do tend to lead them to draw inferences about social situations on the basis of little information. The most striking example of this is the tendency for people to draw inferences about the similarity or difference between two people when they have no logical basis for doing so; people tend to take any difference in behavior between two people, as in the Differential schemas, and over-generalize this difference to all sorts of areas. This tendency is especially

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2. People who differ on any one of the picture-caption dimensions, except power and status, are perceived to differ on the question variables as well. The inconsistent results on power and status are in line with the general inconsistency of results in these variables.

3. Difference in picture-caption variables which involve one person acting overtly more than the other are positively related to one another. These variables are communication, influence, and helping. Thus, the person who communicates more also is perceived to influence more and to be more helpful. The person who has more influence is perceived to help more and talk more. The person who is more helpful has more influence; the only exception to this trend is the rather inconsistent effect of helping as a picture-caption variable on communication. Perhaps people who are being helped are sometimes perceived to need to communicate their needs.

4. There are relatively fewer widely held social schemas with status and power as the picture-caption variables. The only widely held ones appear to be the positive relationship between status and power on the one hand and influence on the other; and the positive relationship between power and helping; and the negative one between status and communication. The subjects did not appear to have any social schemas that indicated that power or status alone provided an adequate basis for predicting the relationship of two people on some other dimension. Moreover, when status or power were the question variables, the subjects had consistent social schemas only with helping and influencing in the picture-captions, with the higher status or power person doing more of both.

Birth order data. The above factor analysis was used to generate factor scores for all subjects. The subjects were then split into the following birth order groups: onlies, firsts, middle and lasts, separately for each sex, and analyses of variance were computed. No results unattributable to chance were found. Similarly, breaks by sex of siblings, number of siblings, age-gap to older and to younger siblings were fruitless, as was a split according to the educational level of the parents. Thus, the birth order hypotheses were not confirmed, nor were any sex differences found.

Discussion

The factor analysis results generally indicate that people do in fact have social schemas, since differences in responding to the various items were correlated, showing that subjects differed in their reactions to the pictures in consistent ways. The dimensions that were chosen *a priori* also in general appear to be those which are involved in social

schemas. However, the results did suggest that taking two dimensions at a time was sometimes inadequate, since some dimensions appeared to cluster in social schemas involving more than two dimensions. In both the Equals and Differential conditions, there were signs of the existence of a social schema consisting of positive correlations between positions on dimensions referring to overt activity: talking, helping, and influencing. This tendency suggests that people may have social schemas of a very complex sort, in which a whole series of dimensions is implicated, almost "gestalts" of social situations. If the existence of such complex social schemas turns out to be pervasive, then it could be said that people possess a limited set of "stereotypes" about types of social situations. These stereotypes could guide behavior as well as perception in a manner parallel to the way that ethnic stereotypes guide other sorts of behavior.

Another unexpected finding is that college students appear to have two dimensions of status and two dimensions of liking, since two separate factors emerged in both cases. This finding suggests that dimensions which social psychologists usually conceive of as unitary, such as liking, may in fact be dual from the point of view of the subjects. Thus, relationships found by researchers with respect to one of these dimensions may not be generalizable to relationships found with respect to the other.

The data also indicate that despite the subjects' disclaimers, their social schemas do tend to lead them to draw inferences about social situations on the basis of little information. The most striking example of this is the tendency for people to draw inferences about the similarity or difference between two people when they have no logical basis for doing so; people tend to take any difference in behavior between two people, as in the Differential schemas, and over-generalize this difference to all sorts of areas. This tendency is especially

striking because the subjects had the option in all cases of saying that the people depicted were neither similar nor different. Furthermore, people tend to assume that people who have some positive relationship with one another, such as liking, influencing, helping, and talking, are similar to one another. This type of inference about interpersonal relationships is parallel to the implicit personality theories that people have about single other people (Bruner, Shapiro, and Tagiuri, 1958).

The results with respect to liking show that in both the Equal and Differential schemas people tend to associate liking with helping, talking, and being influenced, as well as with similarity. The emphasis in balance theory and its derivations on the liking-similarity relationship appears to be but one special case of the large set of social schemas within which liking is associated. Some of the dimensions, such as helping, might in fact be subsumable under Heider's U relationship (Heider, 1958), but there does not seem to be much value in regarding all of these dimensions as one.

In other words, there may be many types of balanced relationships, each one corresponding to one of the several social schemas in which liking is involved. Even more, all of the social schemas measured here can be conceived as a special type of balanced relationship. For instance, a balanced relationship would be one in which two people who interact with one another also help one another; another would be one in which a person who does most of the talking does most of the liking. Accordingly, hypotheses parallel to those that have been tested and, to some degree, supported with respect to the similarity-liking schema, would be implied. Thus, social situations conforming to the social schemas might be better learned, more pleasant, better remembered, etc.,

than those which violate the social schemas or are unbalanced.

Status and power generated the most equivocal results of any of the dimensions. Although factors were extracted concerning them, the t test analysis suggested that the perception of particular situations involving status and power is influenced by other dimensions of the situation. Social schemas involving power and status appear to involve two or more other dimensions besides status and power; e.g., the relationships between power and liking may differ with position on some third dimension, such as helpfulness.

The failure to find any correlation between factor scores and birth order, sex, and education variables could be the result of several factors. The questionnaire may not have been subtle enough to tap subtle differences in social schemas. The projective aspect of the items might have allowed subjects to keep the questionnaire at a distance from themselves. Social schemas may be based so strongly on perceptions of everyday situations that individual differences in background may be overwhelmed. At this point, there is no basis for choosing among these alternatives.

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Footnote

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Table 1

Per Cent of Total Variance Accounted for by the Factor Analysis

Booklet	Per Cent
1	51%
2	53%
3	58%
4	54%
5	49%
6	52%
7	60%
8	50%
9	52%
10	48%
11	52%
12	52%

Table 2

Factor loadings of Equals schema items which were designed to measure a given schema on the factor (or factors) on which these items load most heavily. (Fractions are the number of other items in a booklet which load .40 or greater on that factor, divided by the number of other items.)

Picture-Caption Dimensions	Question Dimensions				
Equal	Similarity	Liking	Helping	Communication	Influence
Similarity		.975 .891 .978 $\frac{1}{15}$ .890 .820	.583 .814 .397 $\frac{0}{15}$ .548 .946	.654 .838 .997 $\frac{0}{15}$ .910 .979	.449 .933 .894 $\frac{0}{15}$ .953 .823
Liking	.979 .948 .922 $\frac{3}{5}$ .982 .847		.991 .928 .955 $\frac{0}{15}$ .961 .939	.888 .981 .896 $\frac{1}{15}$ .964 .978	.918 .989 .995 $\frac{0}{15}$ .905 .956
Helping	.986 .481 .949 $\frac{0}{15}$ .919 .820	.983 .895 .836 $\frac{0}{15}$ .970 .895		.976 .901 .919 $\frac{0}{15}$ .521 .206	.894 .839 .932 $\frac{4}{5}$ .929 .104
Communi-cation	.955 .866 .958 $\frac{2}{15}$ .917 .906	.987 .967 .956 $\frac{0}{15}$ .976 .919	.892 .953 .798 $\frac{0}{15}$ .872 .817		.952 .905 .918 $\frac{0}{15}$ .768 .921
Influence	.329 .919 .941 $\frac{1}{20}$ .967 .916	.882 .851 .884 $\frac{1}{20}$ .901 .856	.961 .937 .967 $\frac{3}{15}$ .871 .953	.977 .415 .797 $\frac{2}{5}$ .716 .245	

Table 3

Factor loadings of Differential schema items which were designed to measure a given schema on the factor (or factors) on which these items load most heavily. (Fractions are the number of other items in a booklet which load .40 or greater on that factor, divided by the number of other items.)

Picture-Caption Dimensions	Question Dimensions						
Diff.	Status	Liking	Helping	Communication	Influ.	Power	Similar.
Status	.460 .966 .581 .055 .050	.959 .962 .952 .960 .557	.583 .468 -.184 .959 .422 .882 .983 .103 .995-.055 3/20 1/20	.939 .318 .273 .953 .852 .036 .952 .228 .356 .923 2/20	.990 .670 .964 .876 .781 1/20		.766 .114 .533 .938 .693
Liking	.303 .816 .927 .252 .384 .901 .864 .359 .918-.154 1/20	.859 .454 .264 .956 .049 1/15	.967 .954 .950 .975 .708	.896 .833 .827 2/15 .814 .958 .426 .467	.978 .977 .945 .965 .822	.228 .960 .973 .187 .077 .980 -.281 .899 .935 .242 2/5	.413 .821 .927 .271 .975 1/15
Helping	.859 .880 .934 .992 1/20 .849	.993 .985 .996 .986 1.000 0/15		.956 .969 .972 .982 .963	.790 .903 .304 .417 .753 2/20	.980 .055 .417 .896 -.019 .975 .839 .435 .566 .789	.896 .897 .951 .327 .889
Commun.	.993 .601 .835 .978 .591	.905 .936 .980 .956 .822 1/20	.927 .960 .897 .861 .954 1/20	.216 .963 .669 .368 .030	.950 .906 .973 .709 .972 2/25	.830 .188 .789 .951 .960	.889 .165 .069 .678 -.033
Influ.	.816 .970 .966 .904 .960	.968 .954 .966 .956 .992	.291 .487 .877 2/5 .966 .940	.985 .896 .976 .960 .987		.598 .554 .921 .106 .951 .084 .750 .062 .434 .889 1/20 1/20	.942 .919 .645 .975 .763
Power		.975-.024 -.029 .910 .852 .343 .356 .892 .321 1/15 .181	.981 .988 .967 .901 .608	.944 .648 .978 .294 .970	.719 .862 .879 .892 .686	-.193 .993 .209 2/20 .473 .693	.981 .039 .947 1/20 -.253 .707

Table 4

T tests of differences between mean scores and scores indicating no relationship between the picture-caption and schema question variables--for Equals schemas. (.05 level of significance= 1.960)

	Similarity	Liking	Helping	Communication	Influence
Similar.		19.0218	20.125	23.325	21.508
		6.1209	16.448	15.607	11.034
		12.7661	11.084	9.907	7.379
		16.7076	22.871	26.972	15.511
		20.9623	6.294	11.362	7.483
Liking	13.670		37.651	36.894	27.063
	12.263		32.393	33.872	17.321
	20.895		48.272	29.270	26.562
	20.682		32.195	40.420	19.370
	12.412		37.675	41.602	29.793
Helping	7.183	21.850		21.293	29.589
	8.633	23.052		18.264	20.111
	8.393	31.535		28.771	24.615
	6.695	23.361		36.822	31.350
Commun.	13.2032	24.827	30.288		10.783
	6.9198	14.204	16.172		10.112
	9.1457	17.255	23.890		9.097
	16.4060	25.680	20.634		14.642
	10.8883	20.528	22.034		17.514
Influ.	8.066	17.020	15.633	23.024	
	15.858	16.708	24.425	24.040	
	11.728	19.870	14.990	15.756	
	12.557	22.231	16.566	26.139	
	11.400	21.536	23.769	30.512	

Table 5

T tests of differences between mean scores and scores indicating no relationship between the picture-caption and schema question variables--for Differential schemas. (.05 level of significance = 1.960)

	Status	Liking	Helping	Commun.	Influence	Power	Similar.
Status		5.736	8.947	5.821	15.165		7.752
		5.370	8.344	10.307	10.264		-10.226
		-4.609	- .299	-7.635	7.393		- 5.109
		4.144	-1.309	8.242	17.700		- 3.667
		7.241	1.361	4.894	10.509		4.718
Liking	-3.476		25.355	31.965	19.646	3.902	15.879
	2.267		25.134	28.382	16.391	-.699	16.294
	-4.410		29.197	24.585	17.176	2.008	8.807
	3.873		24.429	26.971	18.843	5.822	9.648
	.112		15.964	29.440	15.380	.465	8.191
Helping	19.138	6.862		3.195	15.126	17.152	5.613
	4.466	5.305		2.945	4.742	12.308	10.846
	10.390	2.943		1.383	12.633	8.018	11.324
	23.300	4.820		.835	7.226	22.161	6.720
	17.491	8.174		1.048	9.314	16.558	9.602
Commun.	2.684	12.582	10.328		15.837	14.666	25.283
	1.841	16.181	20.754		8.634	12.359	7.818
	-2.981	13.442	13.367		10.134	- .152	13.238
	- .061	10.121	9.545		8.982	2.448	9.703
	5.002	11.651	7.542		9.827	6.045	4.131
Influ.	15.658	2.286	5.449	4.012		18.260	6.272
	13.841	2.009	-2.734	8.540		17.586	8.875
	20.481	-1.953	3.790	8.029		19.153	9.456
	18.394	1.502	5.202	1.094		14.119	4.906
	22.985	2.479	9.046	5.048		18.886	2.604
Power		1.065	11.428	8.515	14.091		5.173
		2.179	14.409	-5.402	14.073		-4.876
		.740	15.090	7.116	13.556		12.929
		-.207	9.079	-9.977	8.695		5.441
		5.336	- .587	4.264	10.703		9.960